APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,959	12/21/2001	Andrew Mark Player	applied 105	7490

			EXAMINER
29397	7590	06/18/2004	ABRAHAM, ESAW T

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ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12 December 2001</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>12/12/01</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims **1-22** are presented for examination.

Specification

2.   The abstract of the disclosure is objected to because; the abstract should not include claim languages such as "comprising" (see line 7 of the abstract) and "further comprising" (see line of 17 of the abstract). Correction is required. See MPEP § 608.01(b).

Drawings

3.   This application, filed under former 37 CFR 1.60, lacks **formal drawings**. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims **1-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (U.S. PN: 6,487,686).

As per claims **1 and 12,** Yamazaki et al. teach or disclose in figure 3 a system comprising a transmission apparatus (58) adds FEC check bits (51) and performs calculations (53) and a receiver (59) corrects errors of received signal, an error counter (56) counts a number of the corrected errors and further the receiver checks bytes (55) and determines an error rate of the channel (57) that conforms an improvement of the error rate of the transmission (see col. 2, lines 15-26). Further, Yamazaki et al. teach that the receiver (59) evaluates the error rate achieved by the FEC checking B2 parity to correct the errors and further an error detector (5) detects a main signal error (see col. 2, lines 27-35 and col. 7, lines 17-30). Furthermore, Yamazaki et al. teach that the receiver (59) may generate an alarm so as to notify a system manager of the occurrence of a mismatch to call the attention (see col. 7, lines 45-57). **However,** Yamazaki et al. **do not explicitly teach** the system is connected to G.709 standard, Yamazaki et al. teach an optical transmission systems such as SONET (ANSI standard) and SDH (ITU-T recommendation) in relation to error correcting functions (see col. 1, lines 54-67 and col. 2, lines 1-14) which the G.709 specification is also known to the SDH (ITU-T recommendations). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to include the G.709 specification in the system of Yamazaki et al. **This modification** would have been obvious because a person having ordinary skill in the art would have been

motivated in order to employ a protocol or a specification (G.709) since the protocol is conventional and well known to the SDH (ITU-T recommendations).

As per claims **2 and 4,** Yamazaki et al. teach all the subject matter claimed in claim 1 including Yamazaki et al. teach that B1 byte indicates BIP-8 and used for detecting a transmission error (see col. 1, lines 31-46). Further, Yamazaki et al. teach a pseudo (random error detection) error step of inserting a pseudo error in a check bit of the frame in a transmitter wherein the inserting part inserts information on a state of validation or invalidation of an error correcting function (see col. 3, lines 6-29). Furthermore, Yamazaki et al. teach that the receiver (59) may generate an alarm so as to notify a system manager of the occurrence of a mismatch to call the attention (see col. 7, lines 45-57). Yamazaki et al. **do not explicitly teach** the detected error includes a signal degrade (SD). **However,** a signal degrade (SD) is known art and common practice or function of the BIP-8 (transmission error detection). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to generate a signal degrade signal in response to errors. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because generating a signal degrade (SD) is well known features of BIP-8 (transmission error detection).

As per claims **3 and 5,** Yamazaki et al. teach all the subject matter claimed in claim 1 including Yamazaki et al. teach that B1 byte indicates BIP-8 and used for detecting a transmission error (see col. 1, lines 31-46). Further, Yamazaki et al. teach a pseudo (random error detection) error step of inserting a pseudo error in a check bit of the frame in a transmitter wherein the inserting part inserts information on a state of validation or invalidation of an error

correcting function (see col. 3, lines 6-29). Furthermore, Yamazaki et al. teach that the receiver (59) may generate an alarm so as to notify a system manager of the occurrence of a mismatch to call the attention (see col. 7, lines 45-57). Yamazaki et al. **do not explicitly teach** detected error includes generating a signal fail (SF). **However,** a signal fail (SF) are known art and common practice or function of the BIP-8 (transmission error detection). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to generate a signal degrade signal in response to errors. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because generating a signal degrade (SF) is well known features of BIP-8 (transmission error detection).

As per claim **6 and 7,** Yamazaki et al. teach all the subject matter claimed in claim 1 including Yamazaki et al. in figure 8 element 15 (Pulse generator) generates a timing signal which indicates a timing at which the pseudo error is to be generated and the decoding part (17) decodes the error position selecting signal in response to the timing generated by the pulse generator (see col. 6, lines 1-13).

As per claims **8-11,** Yamazaki et al. teach all the subject matter claimed in claim 1 including Yamazaki et al. teach that the receiver (59) may generate an alarm so as to notify a system manager of the occurrence of a mismatch to call the attention (see col. 7, lines 45-57). Yamazaki et al. teach in figure 13 teach correspondences between results of the detection of the mismatch and the switching operations of the FEC state of the receiver and as the FEC function of the receiver is validated only when the FEC function is validated in both the transmitter and

the receive and further if there is a mismatch of the FEC state between the transmitter and the receiver, an alarm is generated indicating the mismatch (see col. 8, lines 29-37).

As per claims **13 and 15,** Yamazaki et al. teach all the subject matter claimed in claim 12 including Yamazaki et al. teach that B1 byte indicates BIP-8 and used for detecting a transmission error (see col. 1, lines 31-46). Further, Yamazaki et al. teach a pseudo (random error detection) error step of inserting a pseudo error in a check bit of the frame in a transmitter wherein the inserting part inserts information on a state of validation or invalidation of an error correcting function (see col. 3, lines 6-29). Furthermore, Yamazaki et al. teach that the receiver (59) may generate an alarm so as to notify a system manager of the occurrence of a mismatch to call the attention (see col. 7, lines 45-57). Yamazaki et al. **do not explicitly teach** the detected error includes a signal degrade (SD). **However,** a signal degrade (SD) is known art and common practice or function of the BIP-8 (transmission error detection). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to generate a signal degrade signal in response to errors. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because generating a signal degrade (SD) is well known features of BIP-8 (transmission error detection).

As per claims **14 and 16,** and Yamazaki et al. teach all the subject matter claimed in claim 12 including Yamazaki et al. teach that B1 byte indicates BIP-8 and used for detecting a transmission error (see col. 1, lines 31-46). Further, Yamazaki et al. teach a pseudo (random error detection) error step of inserting a pseudo error in a check bit of the frame in a transmitter wherein the inserting part inserts information on a state of validation or invalidation of an error

correcting function (see col. 3, lines 6-29). Furthermore, Yamazaki et al. teach that the receiver (59) may generate an alarm so as to notify a system manager of the occurrence of a mismatch to call the attention (see col. 7, lines 45-57). Yamazaki et al. **do not explicitly teach** detected error includes generating a signal fail (SF). **However,** a signal fail (SF) are known art and common practice or function of the BIP-8 (transmission error detection). **Therefore,** it would have been obvious to a person having an ordinary skill in the art at the time the invention was made to generate a signal degrade signal in response to errors. **This modification** would have been obvious because a person having ordinary skill in the art would have been motivated to do so because generating a signal degrade (SF) is well known features of BIP-8 (transmission error detection).

As per claims 17 **and 18,** Yamazaki et al. teach all the subject matter claimed in claim 12 including Yamazaki et al. in figure 8 element 15 (Pulse generator) generates a timing signal which indicates a timing at which the pseudo error is to be generated and the decoding part (17) decodes the error position selecting signal in response to the timing generated by the pulse generator (see col. 6, lines 1-13).

As per claims **19-22,** Yamazaki et al. teach all the subject matter claimed in claims 12 including Yamazaki et al. teach that the receiver (59) may generate an alarm so as to notify a system manager of the occurrence of a mismatch to call the attention (see col. 7, lines 45-57). Yamazaki et al. teach in figure 13 teach correspondences between results of the detection of the mismatch and the switching operations of the FEC state of the receiver and as the FEC function of the receiver is validated only when the FEC function is validated in both the transmitter and

the receive and further if there is a mismatch of the FEC state between the transmitter and the

receiver, an alarm is generated indicating the mismatch (see col. 8, lines 29-37).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

US PN: 5,724,362   Lau

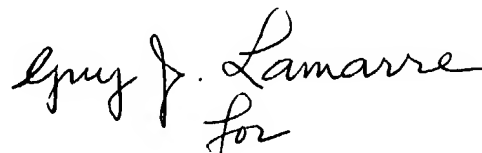US PN: 5,570,377   Merino Gonzalez et al.

6.   Any inquiry concerning this communication or earlier communication from the examiner

should be directed to Esaw Abraham whose telephone number is (703) 305-7743. The examiner

can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor,

Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization

where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Esaw Abraham

Art unit: 2133

Albert DeCady
Primary Examiner